CLAIMS

1. An illumination control system comprising:

a rotation detecting section for detecting the rotation of a filter which is located on a path of illumination light emitted from a light source, which irradiates color light rays having different wavelengths to an object, and which is driven by a rotational driver;

an abnormality determination section for determining whether status of filter rotation is normal or abnormal based on the detected rotation of the filter by the rotation detecting section; and

a filter removing section that removes the filter from the path of the illumination light when the abnormality determination section determines that the status of filter rotation is abnormal.

2. An illumination control system according to Claim 1, further comprising:

a supplied light amount control section that reduces an amount of the illumination light emitted from the light source when the abnormality determination section determines that the status of the filter rotation is abnormal and when the filter removing section removes the filter from the path of the illumination light.

3. An illumination control system according to Claim 1, wherein when the abnormality determination section

determines that status of the filter rotation is abnormal, a video processor produces a monochrome video signal.

4. An illumination control system according to Claim 1, wherein: the rotation detecting section includes a position indicator that is located at a reference point on the filter, and a sensor that detects the position indicator; the sensor detects the position indicator for every rotation of the filter.

5. An illumination control system according to Claim 2, the supplied light amount control section for reducing amount of the illumination light includes a diaphragm adjusting device for adjusting a diaphragm located on the path of the illumination light so as to reduce amount of the illumination light to be irradiated to an object.

6. An illumination control system according to Claim 2, wherein the supplied light amount control section for reducing amount of the illumination light includes a current regulator for regulating a current with which the light source is lit so as to reduce the illumination light to be irradiated to an object.

7. An illumination control system according to Claim 2, wherein the supplied light amount control section for reducing amount of the illumination light includes an amount of light adjusting filter located on the path of the illumination light so as to reduce the illumination light to

be irradiated to an object.

8. An illumination control system according to Claim 1, further comprising a notifying section that when the abnormality determination section determines that the status of the filter rotation is abnormal, notifies a user of an abnormality of the rotation of the filter.

9. An illumination control method for endoscope systems comprising:

detecting rotation of a filter located on a path of illumination light emitted from a light source, which irradiates color light rays having different wavelengths to an object, and which is driven by a rotational driver;

determining whether status of filter rotation is normal or abnormal based on the detected rotation of the filter; and

removing the filter from the illumination path of the illumination light when the status of the filter rotation is determined to be abnormal.

10. An illumination control method according to Claim 9, further comprising:

reducing an amount of the illumination light emitted from the light source when the status of the filter rotation is determined to be abnormal and when the filter is removed from the path of the illumination light.

11. An illumination control method according to Claim 10,

wherein the amount of the illumination light is reduced by adjusting a diaphragm located on the path of the illumination light.

12. An illumination control method according to Claim 10, wherein the amount of the illumination light is reduced by regulating a current supplied to the light source.

13. An illumination control method according to Claim 10, wherein the amount of the illumination light is reduced by placing a light amount controlling filter on the path of the illumination light.

14. An illumination control method according to Claim 9, further comprising:

notifying a user that the status of the filter rotation is abnormal when the status of the filter rotation is determined to be abnormal.

15. An illumination control system comprising:

a rotation detecting means for detecting the rotation of a filter which is located on a path of illumination light emitted from a light source, which irradiates color light rays having different wavelengths to an object, and which is driven by a rotational driver;

an abnormality determination means for determining whether status of filter rotation is normal or abnormal based on the detected rotation of the filter by the rotation detecting means; and

a filter removing means that removes the filter from the path of the illumination light when the abnormality determination means determines that the status of filter rotation is determined to be abnormal.

16. An illumination control system according to Claim 15, further comprising a supplied light amount control means reduces an amount of the illumination light emitted from the light source and supplied to an endoscope when the abnormality determination means determines that status of filter rotation is abnormal and when filter removing means removes the filter from the path of the illumination light.